

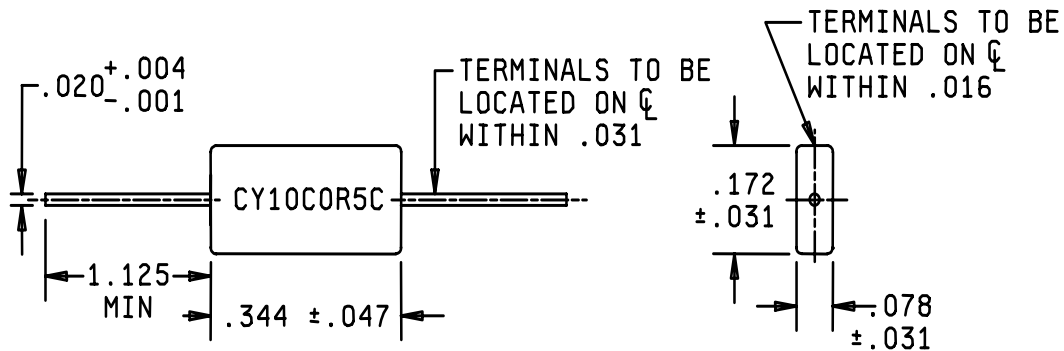
INCH-POUND

MIL-C-11272/1D  
7 February 2003  
SUPERSEDING  
MIL-C-11272/1C  
7 January 1970

MILITARY SPECIFICATION  
CAPACITORS, FIXED, GLASS DIELECTRIC  
STYLE CY10

This specification is approved for use by all Departments  
and Agencies of the Department of Defense.

INACTIVE FOR DESIGN AFTER  
7 JAN 1970. USE MIL-PRF-23269.



Inches	mm
.001	.03
.004	.10
.016	.41
.020	.51
.031	.79
.047	1.19
.078	1.98
.172	4.37
.344	8.74
1.125	28.58

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.

FIGURE 1 Style CY10 capacitors.

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REQUIREMENTS:

Requirements: Requirements shall be in accordance with MIL-C-11272, and as specified herein.

Design and construction: Capacitors shall be of the design, construction, and physical dimensions specified on figure 1 and in table I.

TABLE I. Style CY10.

PIN 1/	Capacitance	DC rated voltage	Capacitance tolerances available	PIN 1/	Capacitance	DC rated voltage	Capacitance tolerances available
	pF	volts			pF	volts	
CY10C0R5C	0.5	500	C	CY10C240-	24	500	GJ
CY10C1R0C	1.0	500	C	CY10C270-	27	500	FGJ
CY10C1R5C	1.5	500	C	CY10C300-	30	500	FGJ
CY10C2R2-	2.2	500	CD	CY10C330-	33	500	FGJ
CY10C2R7C	2.7	500	C	CY10C360-	36	500	FGJ
CY10C3R0-	3.0	500	CD	CY10C390-	39	500	FGJ
CY10C3R3C	3.3	500	C	CY10C430-	43	500	FGJ
CY10C3R6-	3.6	500	CD	CY10C470-	47	500	FGJ
CY10C3R9C	3.9	500	C	CY10C510-	51	500	FGJ
CY10C4R3-	4.3	500	CD	CY10C560-	56	500	FGJ
CY10C4R7C	4.7	500	C	CY10C620-	62	500	FGJ
CY10C5R1C	5.1	500	C	CY10C680-	68	500	FGJ
CY10C5R6-	5.6	500	CJ	CY10C750-	75	500	FGJ
CY10C6R2-	6.2	500	CJ	CY10C820-	82	500	FGJ
CY10C6R8-	6.8	500	CJ	CY10C910-	91	500	FGJ
CY10C7R5-	7.5	500	CJ	CY10C101-	100	500	FGJ
CY10C8R2-	8.2	500	CJ	CY10C111-	110	500	FGJ
CY10C9R1-	9.1	500	CJ	CY10C121-	120	500	FGJ
CY10C100-	10	500	CJ	CY10C131-	130	500	FGJ
CY10C110-	11	500	CJ	CY10C151-	150	500	FGJ
CY10C120-	12	500	CJ	CY10C161-	160	500	FGJ
CY10C130-	13	500	GJ	CY10C181-	180	500	FGJ
CY10C150-	15	500	GJ	CY10C201-	200	500	FGJ
CY10C160-	16	500	GJ	CY10C221-	220	300	FGJ
CY10C180-	18	500	GJ	CY10C241-	240	300	FGJ
CY10C200-	20	500	GJ	CY10C271-	270	300	FGJ
CY10C220-	22	500	GJ	CY10C301-	300	300	FGJ

1/ Complete type designation will include an additional letter symbol to indicate capacitance tolerance, where applicable.

Capacitance: See table I.

Capacitance tolerance: C:  $\pm 0.25$  pF, D:  $\pm 0.50$  pF, F: 1%, G: 2%, J: 5%.

DC rated voltage: 300 and 500 volts.

Temperature range: -55°C to +125°C.

Life: 150 percent dc rated voltage at 125°C +4°C, -0°C for 2,000 hours.

Group A test: 250 hours, group B continuation test for 1,750 hours.

Qualification inspection. Capacitors shall meet the following requirements, as applicable:

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For qualification test:

At 25°C:

Insulation resistance: 100,000 megohms minimum.

Capacitance: Change not more than 0.5 percent of nominal value or 0.5 pF whichever is greater, from initial 125°C value.

Dissipation factor: Not to exceed 0.0025.

At 125°C:

Insulation resistance: Not less than 10,000 megohms.

Capacitance: Change not more than 0.5 percent of nominal value or 0.5 pF whichever is greater, from initial 125°C value.

Dissipation factor: Not to exceed 0.007.

Performance check: Capacitors shall meet the following requirements:

For performance check:

Insulation resistance: 100,000 megohms minimum.

Capacitance: Change not more than 0.5 percent of nominal value or 0.5 pF whichever is greater, from initial 125°C value.

Dissipation factor: Not to exceed 0.0025.

Temperature coefficient and capacitance drift: The temperature coefficient and capacitance drift shall be within the limits specified in table II.

TABLE II. Temperature coefficient and capacitance drift.

Temperature coefficient	Capacitance drift (-55° to +125°C)
parts/million/°C 140 ±25	0.1 percent or 0.1 pF, whichever is greater.

VERIFICATION:

Sampling and inspection shall be in accordance with MIL-C-11272.

Group A inspection: See MIL-C-11272: Successful performance of group A inspection.

Group B inspection: See MIL-C-11272: Successful performance of group B inspection.

Qualification: With respect to products requiring qualification, awards will be made only for products which are, at the time of award of contract, qualified for inclusion in the applicable Qualified Products List whether or not such products have actually been so listed by that date. The attention of the contractors is called to these requirements, and manufacturers are urged to arrange to have the products that they propose to offer to the Federal Government tested for qualification in order that they may be eligible to be awarded contracts or orders for the products covered by this specification. Information pertaining to qualification of products may be obtained from Defense Supply Center Columbus, P. O. Box 3990, Columbus OH 43216-5000.

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Custodians:

Army - CR  
Navy - EC  
Air Force - 11  
DLA - CC

Preparing activity:  
DLA - CC

(Project 5910-2163-01)

Review activities:

Army - MI  
Air Force - 99  
DLA - IS